Requested Patent: WO0133449A1

Title:

AUTOMATIC BID PROCESSING METHOD USING COMPUTER NETWORK SYSTEM ;

Abstracted Patent: WO0133449 ;

Publication Date: 2001-05-10 ;

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Application Number: WO2000KR01221 20001027 ;

Priority Number(s): KR19990047796 19991030 ;

IPC Classification: G06F17/60 ;

Equivalents: AU1061001, KR2001039416 ;

ABSTRACT:

An automatic bid processing method in conducting an auction on a communication network is provided. The method includes the steps of beginning an auction by providing product information to bidders; a plurality of bidders inputting general bids for the product when the plurality of bidders make bids; each of the plurality of bidders selectively inputting a projected maximum bid that the bidder wants to propose for the product; and determining the accepted bid for the product by comparing the final bid, which is the highest price among the general bids, with the first projected maximum bid, which is the highest projected maximum bids initially proposed by the bidders. According to the method, after a bidder sets a projected maximum bid, an auction process is automatically executed based on the final bid and the projected maximum bid, which lessens the inconvenience of frequently bidding and the person whose bid is accepted and an accepted bid can be most rationally determined based on the final bid and the projected maximum bid.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
10 May 2001 (10.05.2001)

PCT

(10) International Publication Number
WO 01/33449 A1

(51) International Patent Classification[7]: G06F 17/60

(21) International Application Number: PCT/KR00/01221

(22) International Filing Date: 27 October 2000 (27.10.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
1999/47796 30 October 1999 (30.10.1999) KR

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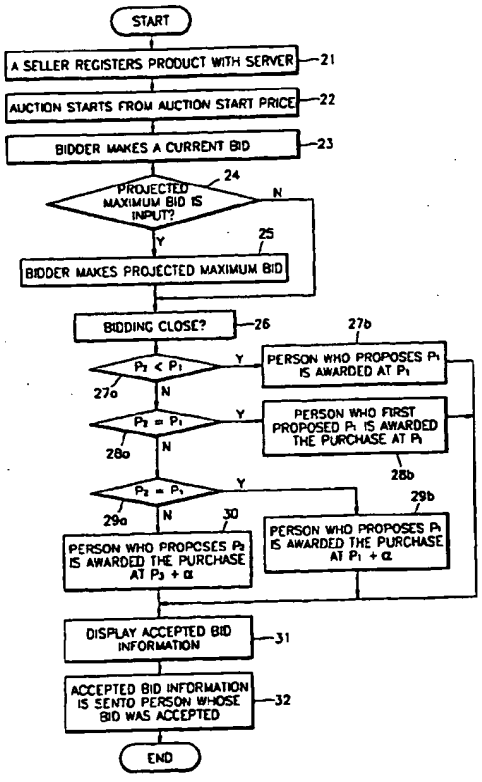
(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian

[Continued on next page]

(54) Title: AUTOMATIC BID PROCESSING METHOD USING COMPUTER NETWORK SYSTEM



(57) Abstract: An automatic bid processing method in conducting an auction on a communication network is provided. The method includes the steps of beginning an auction by providing product information to bidders; a plurality of bidders inputting general bids for the product when the

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patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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Published:

— *With international search report.*

plurality of bidders make bids; each of the plurality of bidders selectively inputting a projected maximum bid that the bidder wants to propose for the product; and determining the accepted bid for the product by comparing the final bid, which is the highest price among the general bids, with the first projected maximum bid, which is the highest projected maximum bids initially proposed by the bidders. According to the method, after a bidder sets a projected maximum bid, an auction process is automatically executed based on the final bid and the projected maximum bid, which lessens the inconvenience of frequently bidding and the person whose bid is accepted and an accepted bid can be most rationally determined based on the final bid and the projected maximum bid.

AUTOMATIC BID PROCESSING METHOD USING COMPUTER NETWORK SYSTEM

Technical Field

The present invention relates to a method of performing an online auction using a computer network system, and more particularly, to an automatic bid processing method using a computer network system, in which a bidder can make a projected maximum bid in addition to a general bid, and when the auction procedure closes, a person whose bid is accepted and an accepted bid are automatically determined.

Background Art

In an auction, a seller registers a product to be auctioned, bidders bid on products, and the bidder whose bid is the highest among the bids of the other bidders may purchase the auctioned product. Therefore, the bidding price for a product changes frequently, and the bidders who want to buy the product must always pay attention to the auction proceeding state.

However, when an auction is conducted online through a communication network such as the Internet, a bidder must not only check the bidding closing time for wanted products, but must also check the current state of the proceeding auction and determine step by step on whether or not to make a bid.

Disclosure of the Invention

To solve the above problems, it is an objective of the present invention to provide an automatic bid processing method in which an auction procedure is performed online between computers connected through a communication network such as the Internet, a user can set a maximum bidding price for a certain product, and when the auction procedure closes, a person whose bid is accepted and an accepted bid are automatically determined.

To accomplish the above object of the present invention, there is

provided an automatic bid processing method using a computer network, in an auction conducting method on a network using an auction server system, the automatic bid processing method including the steps of beginning an auction by providing product information to bidders; a plurality of bidders inputting general bids for the product when the plurality of bidders make bids; each of the plurality of bidders selectively inputting a projected maximum bid that the bidder wants to propose for the product; and determining the accepted bid for the product by comparing the final bid, which is the highest price among the general bids, with the first projected maximum bid, which is the highest projected maximum bids proposed by the bidders.

It is preferable that if the last bid is higher than the first projected maximum price, the last bid becomes the accepted bid, and when the last bid equal to the first bid, the person who first proposed the last bid is awarded the purchase.

It is preferable that if the last bids are equal to the first projected maximum bid and the last bids were proposed substantially at the same time, the person who intends to purchase the greatest quantity of the auctioned item is awarded the purchase, and when this still does not narrow down the qualifications to one person, the person whose bid is accepted is determined by holding a lottery.

It is preferable that a general bid must be equal to the proceeding bid plus a multiple of a predetermined minimum bidding scope.

It is preferable that when the last bid is lower than the first projected maximum bid, a price, which is determined based on the last bid or the second projected maximum bid becomes the accepted bid.

It is preferable that when the last bid is lower than the first projected maximum bid and equal to or higher than the second projected maximum bid, the person who proposed the first projected maximum bid is awarded the purchase at the last bid.

It is preferable that when the last bid is lower than the second

projected maximum bid, the person who proposed the first projected maximum bid is awarded at the second projected maximum bid.

It is preferable that when the last bid is lower than the first projected maximum bid and equal to or higher than the second projected maximum bid, the person who proposed the first projected maximum bid is awarded the purchase at an accepted bid which is obtained by adding a predetermined amount to the last bid.

It is preferable that when the last bid is lower than the second projected maximum bid, the person who proposed the first projected maximum bid is awarded the purchase at an accepted bid which is obtained by adding a predetermined amount to the second projected maximum bid.

It is preferable that the predetermined amount is a minimum bidding scope which is determined based on a bid.

Brief Description of the Drawings

FIG. 1 illustrates an example of the structure of a computer network system for performing the present invention;

FIG. 2 is a flowchart of an example of an automatic bid processing method according to the present invention;

FIG. 3 is a table listing the minimum bidding scope (α) corresponding to various bidding prices (P) as an example;

FIG. 4 is a table for explaining an example of a method in which a person whose bid is accepted and an accepted bid are determined according to the relation between a general bid P_1, a first projected maximum bid P_2, and a second projected maximum bid P_3; and

FIGS. 5A and 5B are tables for explaining examples of an automatic bid processing method according to the present invention.

Best mode for carrying out the Invention

Hereinafter, embodiments of the present invention will be described in detail with reference to the attached drawings. The present invention is

not restricted to the following embodiments, and many variations are possible within the spirit and scope of the present invention. The embodiments of the present invention are provided in order to more completely explain the present invention to anyone skilled in the art.

FIG. 1 illustrates the structure of a computer network system for performing the present invention. A server computer 11 belongs to an auctioneer company which conducts an online auction. Bidder computers 16 are owned by those who participate in order to buy products in the auction conducted by the server computer 11. Also, a seller who provides a product for the auction can register products online with the server computer 11 after connecting the seller's computer (not shown in figures) to the server computer 11 through a communication network 15.

The server computer 11 can include a database 13 for storing detailed bid information, a database 14 for storing minimum bid scope information, and a database for product information (not in drawings), and can store a program for conducting a general auction and a program for automatic bid processing. The bid processing unit 12 of the server computer performs processing for automatically determining a bidder whose bid is accepted and an accepted bid, and the detailed procedure will be explained referring to FIGS. 2 through 5.

The server computer 11 communicates with bidder computers 16 through the communication network 15. The bidder computers 16 connected to the communication network 15 have Internet browsers (for example, Netscape, and Internet Explorer) which can display web contents encoded in Hyper Text Markup Language (HTML). The web browser makes each computer access and display the content of an online auction HTML templet in the server computer 11. The HTML templet of the server computer 11 has a main web page to be displayed for online auction users such as the bidder computers 16.

FIG. 2 is a flowchart of an example of an automatic bid processing method according to the present invention.

A seller accesses the main home page of the server computer 11 through the browser of the seller's computer and registers a product to be auctioned in step 21. The seller can input information on an auction method, the kind (category) of a product, the product name, the product specification, areas where the product can be sold, the available amount of the product, an auction start price, a reference address, etc., and the server computer 11 stores this sales information in a database.

Based on the auction start price of the product proposed by the seller, the server computer 11 conducts an auction by providing information on the product to bidders in step 22. The bidder computers 16 visit an auction site opened in the server computer 11 and make bids for wanted products. Using the browser of the bidder computer 16, a bidder searches through information on products provided by the server computer 11, selects wanted products, and inputs bidding information on a bidding price, delivery location and date, etc., in step 23.

At this time, the bid means a general bid which is currently proposed. After the bidder inputs a general bid, the bidder is asked whether or not the bidder will input a projected maximum bid that the bidder wants to propose for the product in step 24. When a projected maximum bid mode is used, the bidder inputs the projected maximum bid for the product in step 25. Here, the projected maximum bid means the maximum bid that the bidder proposes to pay for the product, and indicates the bidder's intention that, even when the general bid for the product is raised, the bidder wants to remain in the auction up to his projected maximum bid without making any more bids.

The general bid and projected maximum bid are sent to the server computer 16 through the communication network 15, and the server computer 11 stores detailed bid information on each product in the database 13.

Meanwhile, when a bidder makes a bid, the bidder can decide a minimum bidding scope α according to a bid. FIG. 3 shows an example of

the minimum bidding scope (α) determined by a bid (P). When a bid is equal to or less than ₩3,000, the minimum bidding scope is ₩100, that is, the minimum unit amount is ₩100. For example, when the current bid is ₩25,000, a bidder who makes a bid higher than the current bid must make a bid obtained by adding a multiple of the minimum bidding scope (for example, ₩26,000 or ₩29,000).

There are a lot of ways to close an auction. The seller might set the closing time before the auction starts. Also, if there is no more bidding within a predetermined time period, such as 30 minutes or 1 hour, the auction might be closed.

When an auction for a product closes in step 26, the person whose bid is accepted and the accepted bid are automatically determined by the server computer 11 based on the general bids and projected maximum bids proposed before closing. At the time of closing the bid, the general bid finally proposed is the last bid (P_1), the highest price among the projected maximum bids is the first projected maximum bid (P_2), and the next highest price among the projected maximum bids is the second projected maximum bid (P_3). With these bids (P_1, P_2, P_3) the person whose bid is accepted and the accepted bid can be determined.

FIG. 4 is an example of a method in which a person whose bid is accepted and an accepted bid are determined according to relative prices of general bid P_1, first projected maximum bid P_2, and second projected maximum bid P_3. When a person whose bid is accepted and an accepted bid are determined according to the process, the server computer 11 displays accepted bid information in step 31, and sends the accepted bid information to the person whose bid was accepted in step 32.

With reference to FIG. 5, when the last bid P_1 is higher than the first projected maximum bid P_2 in step 27A, the person who proposed the last bid is allowed to purchase at P_1 in step 27B. When the bids are the same in step 28A, the person who bid first is awarded the purchase in step 28B. Since the auction is conducted through the communication network, it is

difficult to imagine a case in which many people make bids at the same time, but it is possible for many people to make bids together in a time unit (for example, the unit of 0.1 seconds, or 0.001 seconds) which is used for determining the order of bidding. In such a case, two person who intends to purchase the greatest quantity of the auctioned item is awarded the purchase, and when this still does not narrow down the qualifications to one person, a lottery must be held.

Next, when the last bid P_1 is lower than the first projected maximum bid P_2 and equal to or higher than the second projected maximum bid P_3, the person who proposes the first projected maximum bid can be awarded at the last bid or at $P_1+\alpha$ in step 29B. Finally, when the last bid P_1 is lower than the first projected maximum bid P_2 in step 29A, a person who proposes the first projected maximum bid can be awarded at the second projected maximum bid or $P_3+\alpha$ in step 30B.

The automatic bid processing method described above will now be explained with examples.

Referring to FIG. 5A, it is assumed that bidder A proposes ₩50,000 as a general bid and ₩150,000 as a projected maximum bid, bidder B proposes ₩70,000 as a general bid and ₩200,000 as a projected maximum bid, and bidder C proposes ₩60,000 as a general bid and ₩160,000 as a projected maximum bid. Here, the first projected maximum bid is ₩200,000 proposed by bidder B, and the second projected maximum bid is ₩160,000 proposed by bidder C.

It is assumed that at the closing time after bidding, the bidding closed with the closing time bids (bidders) shown in cases 1 through 5 of FIG. 5B. When ₩210,000 proposed by bidder D as shown in case 1 of FIG. 5B is the highest bid at the closing time after bidding, the price is higher than the first projected maximum bid, and therefore, a person whose bid is accepted is bidder D and the accepted bid is ₩210,000.

When the highest bid is ₩200,000 proposed by bidder F at the closing time, as shown in case 2 of FIG. 5B, the price is the same as the

first projected maximum bid of bidder B, and therefore, the person who first made the bid between bidders B and F is awarded the purchase and the accepted bid is ₩200,000.

When the highest bid is ₩194,000 proposed by bidder G at the closing time, as shown in case 3 of FIG. 5C, the price is lower than the first projected maximum bid ₩200,000 proposed by bidder B, and higher than the second projected maximum bid ₩160,000 proposed by bidder C, and therefore, bidder B is awarded the purchase and the accepted bid is ₩196,000, that is, the price which is obtained by adding the minimum bidding scope ₩2,000, which corresponds to the closing time bid ₩194,000, to the closing time bid ₩194,000.

When the highest bid is ₩152,000 proposed by bidder H at the closing time, as shown in case 4 of FIG. 5C, the price is lower than the second projected maximum bid ₩160,000 proposed by bidder C, and therefore, bidder B is awarded the purchase and the accepted bid is ₩162,000, that is, the price which is obtained by adding the minimum bidding scope ₩2,000, which corresponds to the second projected maximum bid ₩160,000, to the second projected maximum bid ₩160,000.

Finally, when the highest bid is ₩120,000 proposed by bidder I at the closing time, as shown in case 5 of FIG. 5C, the price is lower than the second projected maximum bid ₩160,000 proposed by bidder C, and therefore, bidder B is awarded the purchase and the accepted bid is ₩162,000, that is, the price which is obtained by adding the minimum bidding scope ₩2,000, which corresponds to the second projected maximum bid ₩160,000, to the second projected maximum bid ₩160,000.

The present invention may be embodied in a code, which can be read by a computer, on a computer readable recording medium. The computer readable recording medium may be any kind on which computer readable data are stored.

The computer readable recording media may be storage media such as magnetic storage media (e.g., ROM's, floppy disks, hard disks, etc.),

optically readable media (e.g., CD-ROMs, DVDs, etc.), or carrier waves (e.g., transmissions over the Internet). Also, the computer readable recording media can be scattered on computer systems connected through a network and can store and execute a computer readable code in a distributed mode.

Industrial Applicability

As described above, in the auction bid processing method according to the present invention, after a bidder sets a projected maximum bid, an auction process is automatically executed based on the final bid and the projected maximum bid, which lessen the inconvenience of frequently bidding, and the person whose bid is accepted and an accepted bid can be most rationally determined based on the final bid and the projected maximum bid.

What is claimed is:

1. An automatic bid processing method using a computer network, in an auction conducting method on a network using an auction server system, the automatic bid processing method comprising the steps of:

beginning an auction by providing product information to bidders;

a plurality of bidders inputting general bids for the product when the plurality of bidders make bids;

each of the plurality of bidders selectively inputting a projected maximum bid that the bidder wants to propose for the product; and

determining the accepted bid for the product by comparing the final bid, which is the highest price among the general bids, with the first projected maximum bid, which is the highest projected maximum bids proposed by the bidders.

2. The automatic bid processing method of claim 1, wherein if the last bid is higher than the first projected maximum price, the last bid becomes the accepted bid, and when the last bid equal to the first bid, the person who first proposed the last bid is awarded the purchase.

3. The automatic bid processing method of claim 1, wherein if the last bids are equal to the first projected maximum bid and the last bids were proposed substantially at the same time, the person who intends to purchase the greatest quantity of the auctioned item is awarded the purchase, and when this still does not narrow down the qualifications to one person, the person whose bid is accepted is determined by holding a lottery.

4. The automatic bid processing method of claim 1, wherein a general bid must be equal to the proceeding bid plus a multiple of a predetermined minimum bidding scope.

5. The automatic bid processing method of claim 1, wherein when the last bid is lower than the first projected maximum bid, a price, which is determined based on the last bid or the second projected maximum bid becomes the accepted bid.

6. The automatic bid processing method of claim 5, wherein when the last bid is lower than the first projected maximum bid and equal to or higher than the second projected maximum bid, the person who proposed the first projected maximum bid is awarded the purchase at the last bid.

7. The automatic bid processing method of claim 5, wherein when the last bid is lower than the second projected maximum bid, the person who proposed the first projected maximum bid is awarded at the second projected maximum bid.

8. The automatic bid processing method of claim 5, wherein when the last bid is lower than the first projected maximum bid and equal to or higher than the second projected maximum bid, the person who proposed the first projected maximum bid is awarded the purchase at an accepted bid which is obtained by adding a predetermined amount to the last bid.

9. The automatic bid processing method of claim 5, wherein when the last bid is lower than the second projected maximum bid, the person who proposed the first projected maximum bid is awarded the purchase at an accepted bid which is obtained by adding a predetermined amount to the second projected maximum bid.

10. The automatic bid processing method of claim 8 or 9, wherein the predetermined amount is a minimum bidding scope which is determined

based on a bid.

11. A computer readable recording medium which stores a program for executing the automatic bid processing method of any one of claims 1-10.

FIG. 1

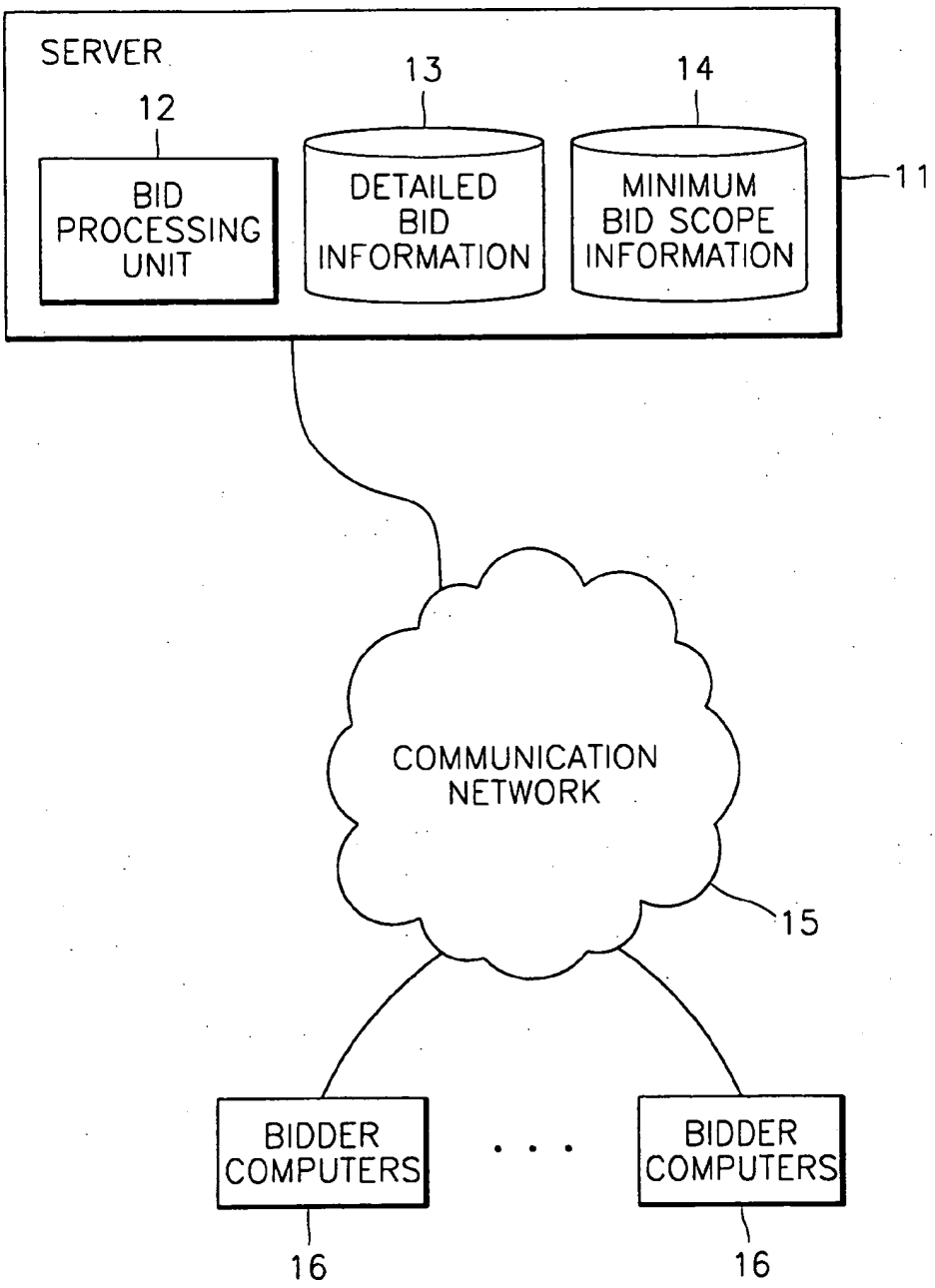
SERVER
12
13
14
BID PROCESSING UNIT
DETAILED BID INFORMATION
MINIMUM BID SCOPE INFORMATION
11
COMMUNICATION NETWORK
15
BIDDER COMPUTERS
BIDDER COMPUTERS
16
16

FIG. 2

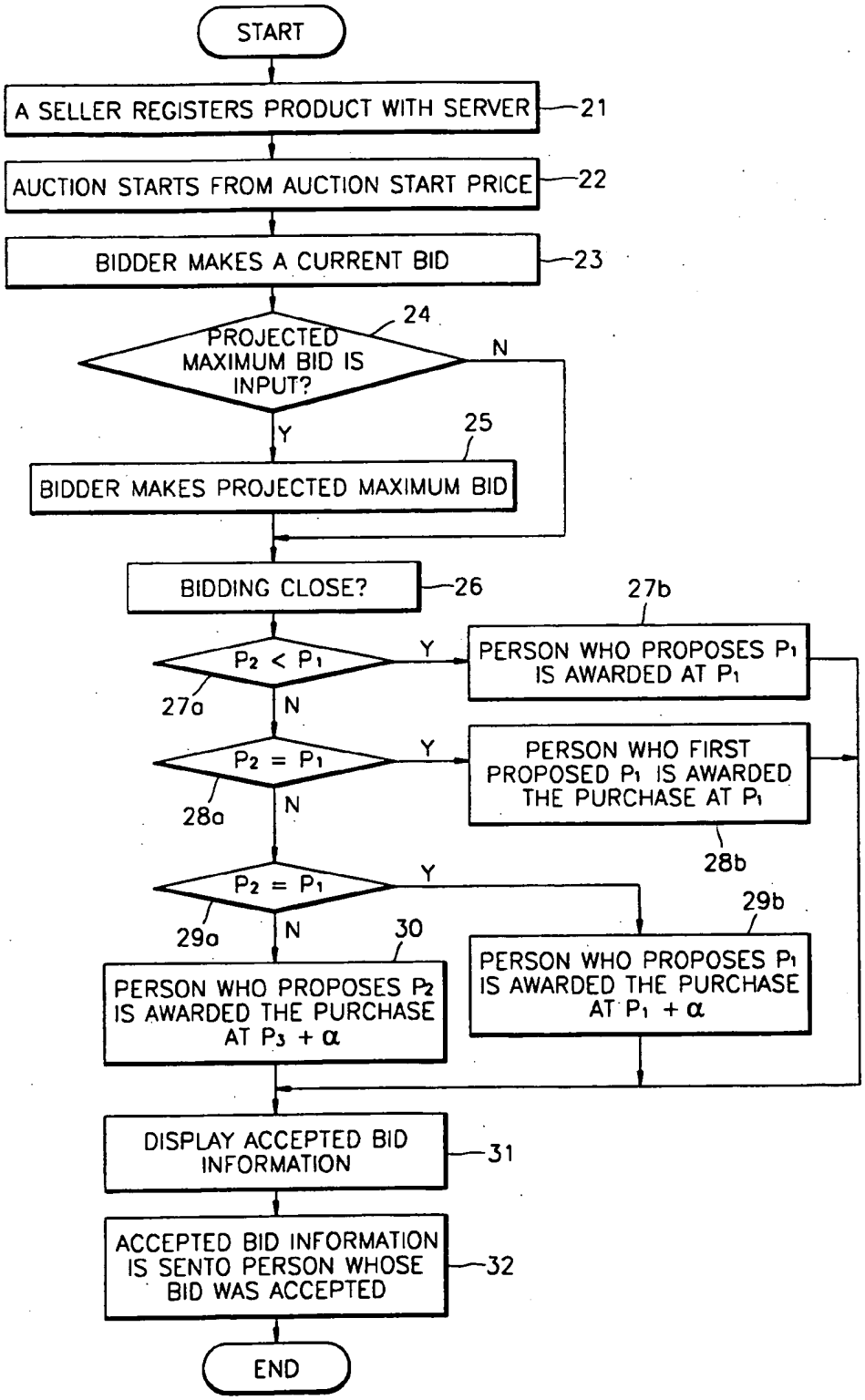
START
A SELLER REGISTERS PRODUCT WITH SERVER
21
AUCTION STARTS FROM AUCTION START PRICE
22
BIDDER MAKES A CURRENT BID
23
PROJECTED MAXIMUM BID IS INPUT?
24
N
Y
25
BIDDER MAKES PROJECTED MAXIMUM BID
BIDDING CLOSE?
26
27b
P2 < P1
Y
PERSON WHO PROPOSES P1 IS AWARDED AT P1
27a
N
P2 = P1
Y
PERSON WHO FIRST PROPOSED P1 IS AWARDED THE PURCHASE AT P1
28a
N
28b
P2 = P1
Y
29b
29a
N
30
PERSON WHO PROPOSES P2 IS AWARDED THE PURCHASE AT P3 + α
PERSON WHO PROPOSES P1 IS AWARDED THE PURCHASE AT P1 + α
DISPLAY ACCEPTED BID INFORMATION
31
ACCEPTED BID INFORMATION IS SENTO PERSON WHOSE BID WAS ACCEPTED
32
END

FIG. 3

BID (P)	MINIMUM BIDDING SCOPE (α)
$P \leqq 3{,}000$	100
$3{,}000 < P \leqq 5{,}000$	300
$5{,}000 < P \leqq 10{,}000$	500
$10{,}000 < P \leqq 100{,}000$	1,000
$100{,}000 < P \leqq 500{,}000$	2,000
$500{,}000 < P$	5,000

FIG.4

CASE	PERSON WHOSE BID WAS ACCEPTED	ACCEPTED BIDDING PRICE
1. $P_2 < P_1$	PERSON WHO BIDS P_1	P_1
2. $P_2 = P_1$	PERSON WHO FIRST BIDS	P_1
3. $P_3 \leqq P_1 < P_2$	PERSON WHO BIDS P_2	$P_1 + \alpha$
4. $P_1 < P_3$	PERSON WHO BIDS P_3	$P_3 + \alpha$

FIG. 5A

BIDDER	GENERAL BID	PROJECTED MAXIMUM BID
A	50,000	150,000
B	70,000	200,000
C	60,000	160,000

FIG. 5B

CASE	CLOSING TIME BID (BIDDER)	PERSON WHOSE BID WAS ACCEPTED	ACCEPTED BID
1	210,000(D)	D	210,000
2	200,000(F)	B OR F	200,000
3	194,000(G)	B	196,000
4	152,000(H)	B	162,000
5	120,000(I)	B	162,000

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR00/01221

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 G06F 17/60

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimun documentation searched (classification system followed by classification symbols)

IPC7 G06F 17/60

Documentation searched other than minimun documentation to the extent that such documents are included in the fileds searched

Korean Patents and applications for inventions since 1975

Electronic data base consulted during the internationl search (name of data base and, where practicable, search trerms used)

http://www.delphion.com, bid<and>proces*, maximum<near>bid

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	US 6026383 A See abstract	1
A	US 5890138 A (BID.COM INTERNATIONAL INC.) 30 MARCH 1999 See column 1, line 57 - column 2, line 63	1

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
12 FEBRUARY 2001 (12.02.2001)	14 FEBRUARY 2001 (14.02.2001)

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